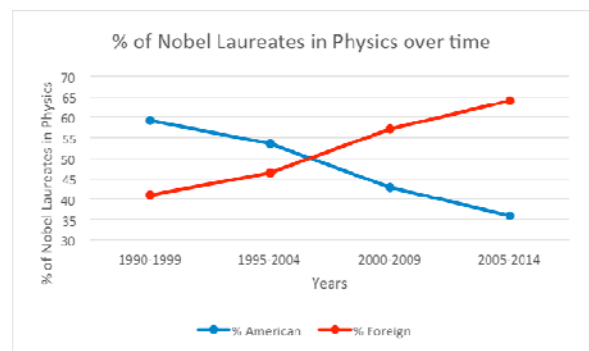
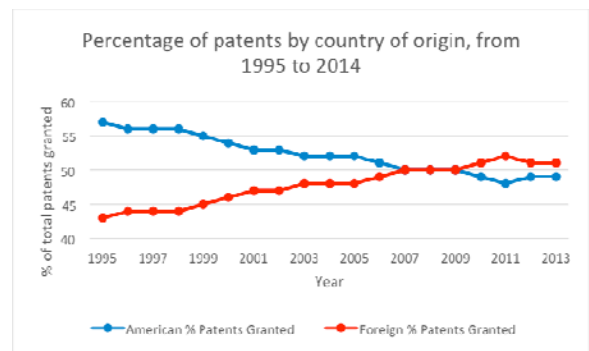
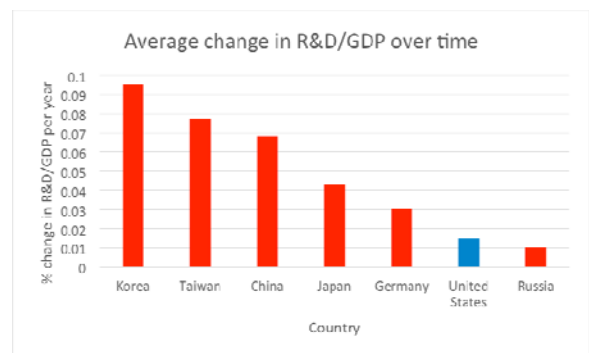


# Restoring America’s world leadership in science and technology requires making scientific research a budget priority and increasing the global competitiveness of its scientific infrastructure.

As members of the science, engineering, and technology communities, we urge Congress to take steps to restore America’s world leadership in science and technology. To reinvigorate its science and innovation enterprise, the United States must invest more in its research programs and scientific infrastructure, and it must move aggressively to improve the capabilities of its science, technology, engineering, and math (STEM) workforce.

- Europe and Asia have invested heavily in their research programs and scientific infrastructure during the last decade – a time when U.S. economic growth has become much more dependent on R&D and U.S. spending on R&D has risen at a much slower rate than our international competitors (Figure 1).
- By many innovation measures – patents, scientific publications, and Nobel prizes – the U.S is losing out to its international competitors (Figures 2 & 3). Today, the U.S. ranks only fifth on the Global Innovation Index, compiled annually by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), and only tenth in the Innovation Technology and Innovation Foundation’s report “Ranking Countries’ Impact on Global Innovation.”



The best scientists in the world will go to the best world-class scientific facilities. Students aiming to be among the best in the next generation of scientists will go train at those world-class facilities. In order to attract and retain the best possible STEM workforce, America must invest more in its scientific infrastructure to be globally competitive.

Looking to industry to fill the growing research investment deficit is not a promising solution. Although industry today spends twice as much as the federal government on total R&D, the private sector focus – driven largely by the demand of stakeholders – is almost exclusively on short-term returns, typically less than two years. As a result, most policymakers recognize that the federal government must be the one to support long-term research, especially discovery-driven or high-risk transformational science. Despite constraints on federal funding, we urge Congress to continue to support scientific research as a budget priority.